

## EDITORS

ERRY YULIAN TRIBLAS ADESTA

MOHAMMAD YEAKUB ALI

AKM NURUL AMIN

# DESIGN FOR MANUFACTURE

Towards Improved Manufacturability



**IIUM Press**

# DESIGN FOR MANUFACTURE

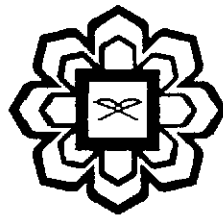
## Towards Improved Manufacturability

### EDITORS

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**IIUM Press**

Published by:  
IIUM Press  
International Islamic University Malaysia

First Edition, 2011  
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Perpustakaan Negara Malaysia

Cataloguing-in-Publication Data

ISBN: 978-967-418-159-8

Member of Majlis Penerbitan Ilmiah Malaysia – MAPIM  
(Malaysian Scholarly Publishing Council)

Printed by :  
**IIUM PRINTING SDN.BHD.**  
No. 1, Jalan Industri Batu Caves 1/3  
Taman Perindustrian Batu Caves  
Batu Caves Centre Point  
68100 Batu Caves  
Selangor Darul Ehsan  
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## Critical Chain in Project Management

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### 1. Introduction

The discussion on the critical chain (CC) project management is done widely after it is introduced by Eliyahu Goldratt in his book especially on project management literature and project management community [1]. CC project management is a method of planning and project managing that emphasis on resources in order to execute project tasks. The basic concept is derived from the Theory of Constraints [1].

Based on the Goldratt's critical chain methodology has a new technique to solve project management problems. This methodology is a new model for project management that represents the longest chain of activity and resources dependent events. Some researcher like Newbold (1998), Leach (1998), and Rand (2000) claims that CC is "new and revolutionary" approach that can reduces delivery time as well as increase the ability to meet schedule and budget commitments [2]. Besides that there are researchers as Hoel and Taylor (1999) mentioned that Buffer Management which is a control mechanism lies at the heart of CC methodology [2].

In addition, there are researcher have discussed the differences between CC and critical path (CP) at conceptual level and philosophical level. CP determines the shortest time to complete the project and its longest duration path through a network of tasks. Meanwhile, CC is a schedule method analysis technique that modifies the project schedule to account for limited resources according to PMBOK [3, 4, 5]. The related theories and their implication for CC and CP are compared in Table 1 [3]. The objective of this chapter is to discuss about the origin of the critical chain project management; theory of constraint and critical chain project management method.